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## ACCEPTED MANUSCRIPT

Surfactant-free electrodeposition of reduced graphene oxide /copper composite coatings with enhanced wear resistance

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### **Graphical abstract**



A surfactant-free electrodeposition approach is proposed to prepare reduced graphene oxide / copper composite coatings with enhanced wear resistance.

#### **Highlights:**

- A surfactant-free method is proposed to electrodeposition RGO/Cu composites.
- A small amount of RGO in composite is enough to reduce friction and wear.
- Mechanism on reduction of friction and wear of composite are investigated.

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